

SUPPLEMENTARY NOTES ON THE AMERICAN SPECIES

OF STRYCHNOS. XVIII.

B. A. Krukoff

Consulting Botanist of Merck Sharp & Dohme Research Laboratories, N.J., and Honorary Curator of New York Botanical Garden.

Since the latest paper of this series (Supplement XVII) was published 93 new collections were examined. The newly examined collection added to our knowledge of several species and extensions of range were noted for eleven. Four species namely S. duckei Krukoff & Monachino, S. krukoffiana Ducke, S. lobelioides Krukoff & Barneby, and S. ecuadorensis Krukoff & Barneby were collected for the second time. I have been waiting for the second collections of the first two since 1946 and 1947. Other prize collections are of S. malacosperma Ducke & Froes which was previously known for several collections from the type locality and S. pachycarpa -from four collections from the general vicinity of Manaus, Amazonas, Brazil.

3. Strychnos colombiensis Krukoff & Barneby, Mem. N.Y. Bot. Gard. 12 (1): 21. 1965.

Dudley 11486 was correctly annotated and cited in Suppl. #11 (Phytologia 22: 236. 1971). Thru a typographical error it was cited in Exsiccatae (Lloydia 35: 263. 1972) as S. asperula.

9. Strychnos araguaensis Krukoff & Barneby, Mem. N.Y. Bot. Gard. 20 (1): 24. 1969.

Brazil: Piaui: mun. de Sete Cidades, Parque Nac. Cachoeira do Riachão, Graziela M. Barroso 212 (RB); Para: São Felix do Xingu, Carlos S. Rosario 60 (MG); Mato Grosso: J. A. Ratter 2346 (UB).

This is the first record of the species from the State of Piaui.

10. Strychnos brachiata Ruiz & Pavón, Fl. Per. 2: 30. 1799.

Venezuela: Barinas: ± 100 m, Steyermark 102071.  
Brazil: basin of Rio Purus, below Boca do Acre, France 2558.

This is the first record of this species from Barinas.

11. Strychnos trinervis (Velloso) Martius, Syst. Mat. Med. Bras. 121. 1843.

Brazil: Minas Gerais: Coronel Pacheco, E. P. Heringer 326 (RG); Rio de Janeiro and Guanabara: Herbarium Jard. Bot. Rio 186333 (RG) (Poco das Antas), D. Sucre 7902 (RG) (base da Pedra da Panela).

13. Strychnos tabascana Sprague & Sandwith, Kew Bull. 1927: 128. 1927.

Mexico: Veracruz: Los Tuxtlas, J. Ismael Calzada 1782 (MEXU).

17. Strychnos krukoffiana Ducke, Trop. Woods 90. 27. 1947.

Colombia: Vaupes: Mitu, Rio Vaupes (inundated), James L. Zaruchi 1823 (US).

This is the second collection of the species and the first record from Colombia. It was known previously from several collections from a single plant near Manaus, Brazil.

18. Strychnos medeola Sagot ex Progel in Mart. Fl. Bras. 6 (1): 282. 1868.

Brazil: Para: Tocantins, M. G. Silva 3474 (MG).

19. Strychnos toxifera Robert Schomburgk ex Bentham, Jour. Bot. Hook. 3: 240. 1841.

T. S. Santos 1250 (UB) from Bahia, Brazil was cited thru error as S. toxifera in Suppl. #13 (Phytologia 27: 99. 1973) and in Exsiccatae (Phytologia 33: 321. 1976). After examination of a better specimen it has been described as S. setosa in Suppl. #17 (Phytologia 41: 222. 1979). There is no record of S. toxifera growing in the State of Bahia.

20. Strychnos tomentosa Bentham, Jour. Linn. Soc. 1: 104. 1856.

Surinam: dist. Nickerie, area of Kabalebo Dam Project, N. M. Heyde 199 (U). French Guiana: Saul: M. Hijman 220 (U).

24. Strychnos jobertiana Baillon, Adansonia. 12: 367. 1879.

Venezuela: Terr. Fed. Amazonas: roadside, 3 km E of San Carlos de Rio Neyro, Ronald Liesner 3483 (Nov. 14, 1977).

25. Strychnos pseudo-quina A. St. Hilaire, Mem. Mus. Paris 9: 340. 1822.

Brazil: Distr. Fed.: C. Sastre 1103 (UB), E. P. Heringer 12858 (RG); São Paulo: L. Emygdio de Mello Filho 3727 (R), D. V. de Toledo Filho 5550 (SP) (mun. Itirapina), P. E. Gibbs 4324 (SP).

27. Strychnos amazonica Krukoff, Brittonia 4: 284. 1942.

Brazil: Amazonas: Manaus - Itacoatiara, Adair R. de Oliveira s.n. (28/7-1976) (INPA).

30. Strychnos lobelioides Krukoff & Barneby, Mem. N.Y. Bot. Gard. 12 (1): 44, fig 2. 1965.

Colombia: Amazonas - Vaupes: Rio Apaporis, entre Rios Kananeri y Pacoa, +250 m, H. Garcia-Barriga 14021 (Dec. 1/15-1950).

This is the first collection with mature leaves and fruit-pedicel from which it is evident that the fruits are small and thin-shelled.

This species was previously known from the type collection with flowers and immature leaves from the basin of Rio Apaporis, Vaupes, Colombia.

31. Strychnos peckii B. L. Robinson, Proc. Amer. Acad. 49: 504. 1913.

Panama: Panama: El Llano - Carthi Road, P. J. M. Maas 1768.

This is the first record of the species from the province of Panama.

32. Strychnos erichsonii Richard Schomburgk, Reisen 3: 1082. 1848, nomen; ex Progel in Mart. Fl. Bras. 6 (1): 274. 1868.

Surinam: Coppename River, National Reserve Raleigh Falls, N. M. Heyde 641 (U), National Reserve Brownsberg, + 450 m, J. C. Lindeman 76 (U), area of Kabalebo Dam project. J. C. Lindeman 19 (U), 200 (U). Brazil: Amapá: margem do Rio Cupixi, Benedito G. S. Ribeiro 1568; Mato Grosso: Rio Juruena, M. G. Silva 3259 (MG).

- 32a. Strychnos croatii Krukoff & Barneby, Phytologia 33: 313. 1976.

Panama: Darien: J. P. Folsom 6368 (lowland area between Cerro Pierre and Piji vasal, 300 m); Barry Hammill 1138 (east base of Cerro Sapo, ± 1300 ft).

33. Strychnos gardneri A. DeCandolle in DeCandolle Prodr. 9: 14. 1845.

Brazil: Goias: mun. Luziania, E. P. Heringer 11945 (RG); 14399 (RG).

In Supplement #17 (Phytologia 41: 217. 1979) is stated that this species occurs in the state of Maranhao, Brazil. This is not correct.

35. Strychnos bredemeyeri (Schultes) Sprague & Sandwith, Kew Bull. 1927: 128 1927.

Venezuela: Terr. Fed. Amazonas: Ronald Liesner 3459; 3560; Apure: Garrit Davidse 12848.

This is the first record of this species from Apure.

- 36a. Strychnos mitscherlichii Richard Schomburgk, Reisen 2: 451. 1848, var. mitscherlichii.

Guyana: Mazaruni River, 1-5 km NE of Kamarang, P. J. M. Maas 2515 (U). Colombia: border between Depts Antioquia and Bolivar, J. de Bruijn 1531 (WAD). Peru: Loreto: Iquitos, R. Martin 1682 (US).

This is the first evidence that this species is found in Antioquia and Bolivar.

38. Strychnos darienensis Seemann Bot. Voy. Herald 166. 1854.

Costa Rica: Puntarenas: Osa Peninsula, Roy W. Lent 430. Brazil: Para: Rio Cururu, Luis Emygdio Mello Filho 4343 (R). Peru: Loreto: Maynas, Juan Revilla 2251, 2502, Christopher Davidson 5362.

- 38a. Strychnos ecuadorensis Krukoff & Barneby, Phytologia 39: 276. 1978.

Ecuador: Napo: Coca, Puerto Francisco de Orellana, Holguer Lugo S. 2841 (US).

This is the first collection with mature flowers and they are shown on the attached drawing. The specimen has no tendrils or spines.

This species was previously known from the type collection from Napo, 4.2-7.5 kms W of Lago Agrio, from the rainforest.

39. Strychnos guianensis (Aublet) Martius, Syst. Mart. Med. Bras. 121. 1843.

Guiana: Mahaicony River, Butenabu Creek, D. H. Davis  
207. Brazil: Rondonia: Herbarium Jard. Bot. Rio 184060  
 (RG). Colombia: Vaupes: Mitu, James L. Zaruchi 2169 (INPA).  
 Peru: Loreto: Maynas, Al. Gentry 20816, Juan Revilla 2054, 2484.

45. Strychnos duckei Krukoff & Monachino, Lloydia 9: 68.  
 1946.

Brazil: Acre: Cruzeiro do Sul, L. R. Marinho 285 (MG).

This is the first collection in fruit. Fruits are small ( $\pm$  1.25 mm in diam), one-seeded, with thin shells and yellow when mature.

This species was previously collected twice from the same plant near Marco (few dozen meters from the Colombian border), Tabatinga, Amazonas, Brazil.

48. Strychnos melinoniana Baillon, Bull. Soc. Linn. Paris 1: 256. 1880.

Guiana: NW District, P. J. M. Maas 2452 (U). Surinam: Brownsberg, P. J. M. Maas 2316 (U).

49. Strychnos parviflora Spruce ex Bentham, Jour. Linn. Soc. 1: 107. 1856.

Brazil: Mato Grosso: Fazenda Cachimbo, terra firme. M. R. Cordeiro 1122 (MG).

This is the first record of this species from Mato Grosso.

52. Strychnos oiapocensis Froes, Bol. Tecn. Inst. Agron. Norte 36: 143. 1959.

Surinam: Afobaka Road, N. M. Heyde 363 (U).

53. Strychnos fendleri Sprague & Sandwith, Kew Bull. 1927: 129. 1927.

Venezuela: Anzoatequi: Al. Gentry 14849; Sucre: be-

tween Puerto La Cruz and Cumana, in scrub forest, G. Davidse  
5075.

54. Strychnos atlantica Krukoff & Barneby, Mem. N.Y. Bot. Gard. 20(1): 61. 1969.

Brazil: Bahia: Porto Seguro, reserva de Ceplac, Luis  
Emygdio de Mello Filho 2952 (R).

55. Strychnos rubiginosa A. DeCandolle in DeCandolle Prodr. 9: 16. 1845.

Brazil: Bahia: Irwin 30675 (Serra do Tombador, + 22 km W of Morro do Chapeu, alt. + 1000 m, caatinga). R. M. Harley 19142 (disturbed caatinga); Mato Grosso: Chapada dos Guimaraes, France 18802 (MG).

Irwin 30675 thru error was cited under S. pseudo-quina in Suppl. #13 (Phytologia 2/1: 99. 19/3) and said to be a new record from Bahia. It is correctly cited under S. rubiginosa in the List of Exsiccatae (Phytologia 32: 320. 1976). In checking the card file on specimens of S. pseudo quina (135 collections) I find no record of this species from Bahia.

56. Strychnos parvifolia A. DeCandolle in DeCandolle Prodr. 9: 16. 1845.

Brazil: Para: Tocantins, M. G. Silva 3497 (MG); Pernambuco: Luis Emygdio de Mello Filho 3777 (R); Bahia: mun. Maracas, S. A. Mori 9924, 9978.

57. Strychnos fulvotomentosa Gilg in Engler Bot. Jarb. 25 (Beibl. 60): 40. 1898.

Brazil: Rio de Janeiro and Guanabara: Schwacke 520/ (RG), Mello Filho 98 (R).

- 57a. Strychnos recognita Krukoff & Barneby, Phytologia 27: 103. 19/3.

T. S. dos Santos /2/ (UB) was cited thru error as S. fulvotomentosa in Suppl. #13 (Phytologia 2/1: 103. 19/3) and in Exsiccatae (Phytologia 33: 321. 19/6). After examination of a better specimen it has been correctly identified and cited in Suppl. #17 (Phytologia 41: 225. 1979).

59. Strychnos brasiliensis (Sprengel) Martius, Flora 24 (Beibl. 2): 84. 1841.

Brazil: Rio de Janeiro: Serra dos Orgaos, J. C. Lindeman 6388 (R); Parana J. C. Lindeman 2286 (U), 2845 (U), E. Pereira 7163 (BM), Herbarium Jard. Bot. Rio 139431 (RG); Rio Grande do Sul: Pabst 6380 (R). Argentina: Corrientes: A. Schinini 11422 (Mexi).

61. Strychnos pachycarpa Ducke, Bol. Tech. Inst. Agron. Norte 3: 15. 1945.

Surinam: along railway, near Poekti, N. M. Heyde 520 (U).

This is the first record of the species from Surinam.

63. Strychnos brachistantha Standley, Field Mus. Publ. Bot. 12: 412. 1936.

Mexico: Tabasco: A. Novelo 44 (BM); Chiapas: D. E. Breedlove 38882 (CAS), 42854 (CAS), Alush Shilom Ton 3783 (CAS). Belize: Cayo, T. B. Croat 23595 (Mexi).

This is the first record of the species from Chiapas.

65. Strychnos matogrossensis S. Moore, Trans. Linn. Soc. II. 4: 392. 1895.

Venezuela: Apuré: San Fernando, north bank of Orinoco, Gerrit Davidse 13187, 13207 (MO).

This is the first record of this species from Apuré.

68. Strychnos malacosperma Ducke & Froes, Bol. Tecn. Inst. Agron. Norte 30: 43, figs 1-8. 1955.

Brazil: Para: Rio Peri (tributary of Rio Xingu), R. L. Froes 32488 (30/11-1956).

This species was previously known from the 5 collections from the type locality near Monte Alegre, Colonia de Mulata, Para, Brazil.

70. Strychnos tarapotensis Sprague & Sandwith, Kew Bull. 1927: 131. 1927.

Peru: Amazonas: Rio Genepa, 200-250 m, A. Kujikat 67 (MO), 150, Ernesto Anquash 1002; Tingo Maria - Pucalpa, 1510 m, Herbarium Ellenberg 3852 (US); Loreto: Maynas, 300 m, Ch. Froehner 61.

## List of Exsiccatae

The first list of Exsiccatae covering papers on *Strychnos*, including Supplement XI, was published in *Lloydia* 35(3): 262-270. 1972, the second covering Supplements XII, XIII and XIV in *Phytologia* 33: 319-322. 1976, the third covering Supplements XV and XVI in *Phytologia* 39: 281-282. 1978. The forth list covering Supplement XVII in *Phytologia* 41: 237-238. 1979. Only numbered collections and those of which the dates of collection are recorded have been listed. Collections identified with doubt are not listed. If a collector gathered his collection together with others, only his name is cited in this list. Collections with Dr. Prance's numbers are cited under Prance.

Ancuash, Ernesto, 1002 (70).

Barroso, Graziela M., 212 (9).

Breedlove, D. E., 38882 (63), 42854 (63).

Bruijn de, J., 1531 (36a).

Calzada, J. Ismael, 1782 (13).

Cordeiro, M. R., 1122 (49).

Croat, T. B., 23595 (63).

Davidse, Gerrit, 5075 (53), 12848 (35), 13187 (65), 13207 (65).

Davidson, C., 5362 (38).

Davis, D. H., 207 (39).

Ellenberg (Herbarium), 3852 (70).

Folsom, J. P., 6368 (32a).

Froehner, Christoph, 61 (70).

Froes, R. L., 32488 (68).

Garcia-Barriga, H., 14021 (30).

Gentry, Al., 14849 (53), 20816 (39).

Gibbs, P. E., 4324 (25).

Hammel, Barry, 1138 (32a).

Harley, R. M., 19142 (55).

Herbarium Jard. Bot. Rio, 139431 (59), 184060 (39), 186333 (11).

Heringer, E. P., 326 (11), 11945 (33), 12858 (25), 14399 (33).

Heyde, N. M., 199 (20), 363 (52), 520 (61), 641 (32).

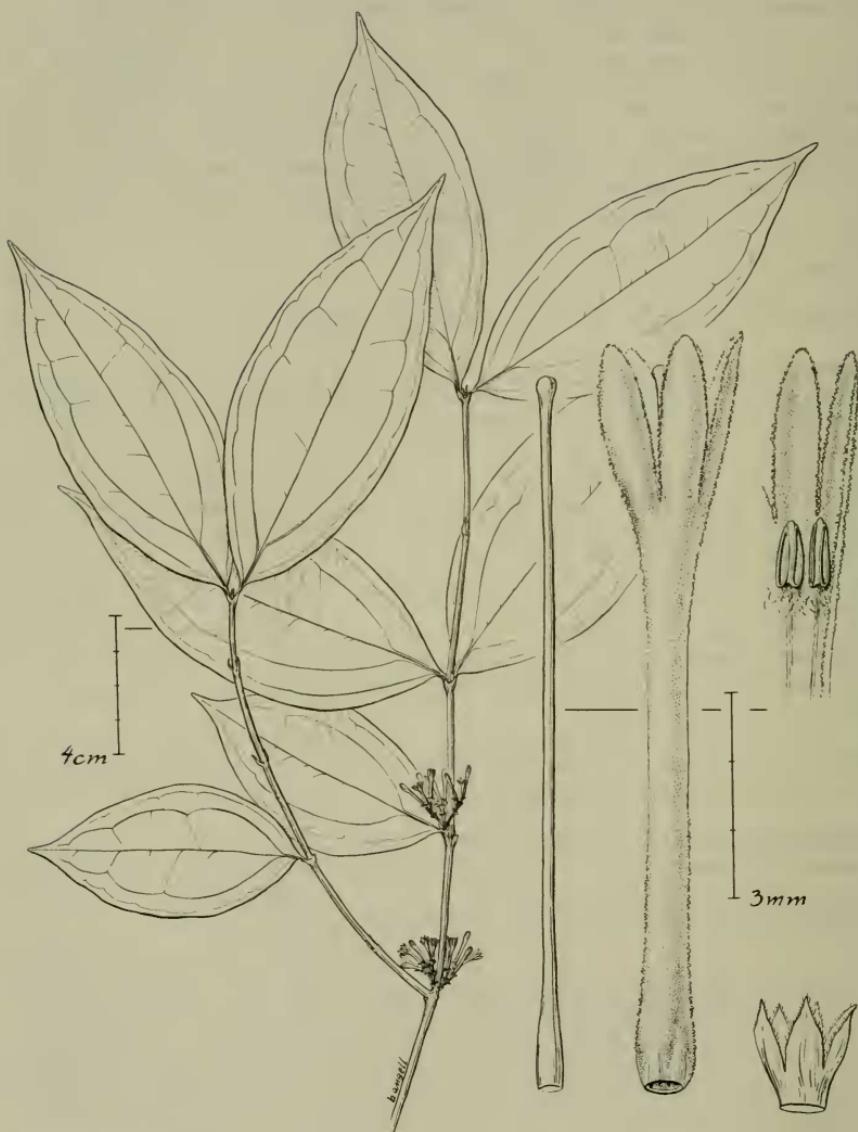
Hijman, M., 220 (20).

Holguer, Lugo S., 2841 (38a).

Kujikat, A., 67 (70), 150 (70).

Labouriau, L., 1160 (25)

- Labouriau, L., 1160 (25).  
Lent, Roy W., 430 (38).  
Liesner, Ronald, 3459 (35), 3483 (24), 3560 (35).  
Lindeman, J. C., 19 (32), 76 (32), 200 (32), 2845 (59),  
2286 (59), 6388 (59).  
  
Maas, P. J. M., 1768 (31), 2316 (48), 2452 (48), 2575 (36a).  
Marinho, L. R., 285 (45).  
Martin, R., 1682 (36a).  
Mello Filho de, Luis Emilio, 98 (57), 2952 (54), 3727 (25),  
3777 (56), 4343 (38), s.n. (23/04-1976) (43).  
Mori, S. A. 9924 (56), 9978 (56).  
  
Novelo, A., 44 (63).  
  
Oliveira de, Adair R., s.n. (28/7-1976) (27).  
  
Pabst, G. F. J., 6380 (59).  
Pereira, E., 7163 (59).  
Prance, G. T., 2558 (10), 18882 (55).  
  
Ratter, J. A., 2346 (9).  
Revilla, Juan, 2054 (39), 2251 (38), 2484 (39), 2502 (38).  
Ribeiro, Benedito G. S., 1568 (32).  
Rosario, Carlos S., 60 (9).  
  
Sastre, C., 1103 (25).  
Scchinini, A., 11422 (59).  
Schwacke (Herb), 5207 (57).  
Silva, M. G., 3259 (32), 3474 (18), 3497 (56).  
Sucre, D., 7902 (11).  
  
Toledo de, Filho, D. V., 5550 (25).  
Ton, Shilom Alush, 3783 (63).  
  
Steyermark, Julian, 102071, (10).  
Sucre, D., 4049 (59).  
  
Zaruchi, James L., 1823 (17), 2169 (39), 2189 (39).



Holguer Lugo S. 2841

*Strychnos ecuadorensis* Krukoff & Barneby